

1 DESCRIPTION

The Gardner Denver Auto Sentry ES/RS2000 driver allows the FieldServer to transfer data from devices over either RS-232 or RS-485 using Gardner Denver Auto Sentry ES/RS2000 protocol. The driver can be configured to communicate with ES Controllers with software versions V2.0X, V2.1X and RS2000 Controllers with software versions V4.0X

The client driver implements the following functionality:

- Polls controllers for service and maintenance data.
- Polls controllers for operating mode data.
- Polls controllers for operating data.

The driver can poll up to 8 units connected to one ES/RS2000 Controller. It always sets the active unit on the ES/RS2000 Controller before polling for data even if consecutive polls are for the same unit. This is done to prevent synchronization problems.

Gardner Denver ES/RS2000 Controllers implements three message types for which the driver can poll. The driver does not validate the message data fields for correct values although it does validate data field lengths. For example, shutdown codes reported by V2.1 ES Controllers range from 0 to 27. If a code of 28 is reported, the driver will not flag it as an error since codes have to be interpreted by the operator. However, a message length longer than 2 digits will be reported as an error.

1.1 Connection Facts

| FieldServer Mode | Nodes | Comments |
|------------------|-------|--|
| Client | 1 | A client node can communicate with up to 8 units connected to a ES/RS2000 Controller |

2 FORMAL DRIVER TYPE

Serial
Client Only

3 COMPATIBILITY MATRIX

| FieldServer Model | Compatible with this driver |
|------------------------|-----------------------------|
| FS-x30 | Yes |
| SlotServer | No |
| ProtoNode | No |
| QuickServer FS-QS-10xx | No |
| QuickServer FS-QS-12xx | No |
| ProtoCessor FPC-ED2 | No |
| ProtoCessor FPC-ED4 | No |

4 CONNECTION INFORMATION

Connection type: RS-232 Or Rs-485 (Two wire, Half-Duplex)
 Baud Rates: 1200; **9600**
 Data Bits: **7,8**
 Stop Bits: **1,2**
 Parity: Odd, Even, **None**
 Multidrop Capability: Yes

5 DEVICES TESTED

| Device | Tested (FACTORY, SITE) |
|----------------|------------------------|
| AUTO Sentry ES | SITE |
| RS2000 | SITE |

6 COMMUNICATIONS FUNCTIONS – SUPPORTED AT A GLANCE:

6.1 Read Operations supported

| FieldServer as a Client |
|---|
| Read Service and Maintenance Data |
| Advisories |
| Shutdown codes |
| Total runtime hourmeter readings @ shutdown codes |
| Current total runtime hourmeter reading |
| Current loaded runtime hourmeter reading |
| Current temp hourmeters |
| Stored temp hourmeters |
| Last maintenance A |
| Last maintenance B |
| Oilage |

| |
|---------------------------|
| Read Operating Mode Data |
| Operating mode indication |
| Sequence number |
| Unit operating state |
| Read Operating Data |
| System pressure |
| Filter pressure |
| Discharge temperature |
| Reservoir temperature |
| Motor current |

6.2 Unsupported Functions and Data Types

| Function | Reason |
|----------------------|---|
| Programming messages | FieldServer is a data transfer device, and as such, programming messages are not required |